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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------|
| 10/692,916 | 10/24/2003 | Michael Roberts | 00216-368005 | 9057 |
| 26161 | 7590 | 05/18/2004 | | |
| FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110 | | | EXAMINER SPISICH, MARK | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1744 | |
| DATE MAILED: 05/18/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

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|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/692,916 | | ROBERTS ET AL. | |
| | Examiner | | Art Unit | |
| | Mark Spisich | | 1744 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25,33-37 and 39-62 is/are pending in the application.
- 4a) Of the above claim(s) 25,33-37 and 45-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-44 and 50-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/03 & 2/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of the invention of Group III in Paper of 25 March 2004 is acknowledged.
2. Claims 25,33-37 and 45-49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper of 25 March 2004.

Comment re Prior Application(s)

The insert made in page 1 in the preliminary amendment of 24 October 2003 should be amended in that 08/730,286 was a continuation-**in-part** of 08/554,931. It is also suggested that applicant update the status any of the prior applications which been identified only by serial number.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 55-60 and 62 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,151,745. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent anticipated the noted claims of the present application and further wherein any differences between the claims of the patent and the application would be obvious to one having ordinary skill in the art.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 50-53,55,57 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birch (USP 3,103,027) in view of Michaels (USP 5,040,260). The patent to Birch discloses a toothbrush comprising a handle (10), head portion (11) and a brush portion comprising (1) a single row of elastomeric first bristles (13) (see the embodiment of figs 5-6) along one (as well as the other one of claim 51) outer longitudinal edge thereof and (2) a plurality of non-elastomeric bristles (12) and further wherein the first and second bristles have the same height (fig 5 and column 2, lines 25-26). The patent to Birch discloses the invention substantially as claimed with the exception of the specific elastomer material. The patent to Michaels discloses an oral brush with a brush portion comprising a plurality of elastomeric bristles/projections

(10,12) of SANTOPRENE (see column 5, line 2) which is the preferred "polyolefin elastomer" of the present application (see page 7, line 3). It would have been obvious to one of ordinary skill to have modified the rubber bristles of Birch as taught by Michaels for the reasons set forth in Michaels. Given the disclosure of the preferred material as well as its use in an oral brush, any differences in the material properties (the Shore A hardness of 30 or greater) would be obvious to one having ordinary skill in the art as optimization of a prior art device does not constitute a patentable step. Also, the document "AQ" submitted by applicant on 17 February 2004 would also suggest that SANTOPRENE would almost inherently possess a Shore A hardness of 30 or greater.

7. Claims 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birch (USP 3,103,027) and Michaels (USP 5,040,260) as applied to claim 55 above, and further in view of Muhler et al (USP 3,613,143). The patent to Birch discloses the invention substantially as claimed with the exception of the particulars of the non-elastomeric bristles (12). The use of polyamide for toothbrush bristles is well known in the art and the patent to Muhler discloses (1) toothbrush bristles of nylon (a polyamide); (2) the nylon material including an abrasive additive (column 7, lines 36-52); and (3) the bristles having a diameter of 8 mil (with the recited range of claim 60). It would have been obvious to one of ordinary skill to have modified the bristles (12) of Birch as taught by Muhler to enhance tooth cleaning and polishing.

8. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moskovich (USP 5,628,082) in view of Michaels (USP 5,040,260). The patent to Moskovich discloses a toothbrush comprising a handle, head portion and brush portions

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wherein the brush portion is comprised of (1) angled (i.e. non-perpendicular) gumline tufts (88 or 98 or 116 or 140 or 124) which may be in the form of "rubber or rubber-like material" (column 6, line 18) and (2) non-elastomeric bristles (eg 92) between the rows of gumline tufts on opposite outer longitudinal edges of the head portion. The patent to Moskovich discloses the invention substantially as claimed with the exception of the specific elastomer material. It would have been obvious to one of ordinary skill to have modified the gumline tufts of Moskovich as taught by Michaels for the same reason set forth above.

9. Claims 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pavone et al (USP 5,325,560) in view of Modic (USP 5,723,543). The patent to Pavone discloses an oral brush (10) comprising a handle (13), head portion (15) comprising at least one elastomeric element (the two opposed sides of the bumper 38 constitute a pair of elastomeric elements along a longitudinal outer edge of the head portions) as well as a plurality of non-elastomeric bristles (16). The patent to Pavone discloses the invention substantially as claimed with the exception of the specific elastomer. The patent to Modic discloses an elastomeric styrenic block copolymer which may, among other things, be used to constitute a portion of a toothbrush body (see column 4, line 27). It would have been obvious to one of ordinary skill to have modified the device of Pavone as such as the material of Modic is shown to be well suited to overmolding, which is a well known method of making dual-material toothbrush bodies. The particular type of styrenic copolymer (claim 56) as well as the material

properties would be an obvious choice of design to one having ordinary skill in the art (optimization of the prior art, routine experimentation).

10. Claims 39,41-44 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61-090877. '877 discloses discloses monofilament bristles which can be used in any brushes and which bristles are comprised of a blend of polybutylene terephthalate (which is one of the non-elastomeric polymers disclosed (see page 3, lines 28-30) in the present application) and polyester elastomer (which is one of the thermoplastic elastomeric polymers disclosed (see page 3, lines 30-33) in the present application). With regard to the handle extending from a brush head, the mere provision of such an arrangement in a brush is so common as to be obvious to one having ordinary skill in the art (based on the desired use thereof). The recitation of "oral brush" in line 1 of claim 39 fails to distinguish over '877. '877 further discloses a polyester thermoplastic elastomer (claims 41-42) and the blended "elements" being bristles (claim 61). Varying the particular elastomer component (claim 44) would be within the basic teaching of '877 (the blending of a non-elastomer with an elastomer) and would be obvious to one having ordinary skill in the art and a familiarity of elastomeric materials and their properties. The ratio of claim 44 is taught by '877.

11. Claims 39-44 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vallis (USP 3,128,487) in view of JP 61-090877. The patent to Vallis discloses a brush comprising an elongated body (4), head portion (1) and a plurality of plastic bristles. The patent to Vallis discloses the invention substantially as claimed with the exception of the particular bristle composition. '877 discloses, as mentioned above, a

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synthetic bristle composition which may be used in a variety of brushes (including hair brushes per the translation provided with the original citation thereof). It would have been obvious to one of ordinary skill to have modified the brush of Vallis as taught by '877 to provide increased toughness and resistance to fatigue, etc. The panel (3) which is integral with the bristles of Vallis and of the same material as the bristles reads on the "spacer" of claim 40.

12. Claims 39,41-44 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muhler et al (USP 3,613,143) in view of Scheetz (USP 4,391,951). The patent to Muhler discloses an elongated body (42), head portion (44) and a plurality of bristles (50,52) preferably made of nylon 6,10 (see column 3, line 31). The patent to Muhler discloses the invention substantially as claimed with the exception of the blended bristles. The patent to Scheetz discloses that nylon 6 may include an additive of polyester thermoplastic elastomer (claims 41,42) which may be from 5 to 46 percent of the material (claim 44). It would have been obvious to one of ordinary skill to have modified the nylon 6 bristles (and this claim 61 too) of Muhler as taught by Scheetz to improve the wear life thereof.

13. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michaels (USP 5,040,260) in view of Zukosky et al (USP 4,525,531). The patent to Michaels discloses an elongated body (4), head portion (2) and a plurality of thermoplastic elastomer bristles (10,12). The patent to Michaels discloses the invention substantially as claimed with the exception of the blend of materials (although it does state that the preferred material is an elastomeric alloy (which is a blend). The patent to

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Zukosky teaching the blending of a non-elastomeric polymer (polypropylene) and a thermoplastic elastomeric polymer (KRATON). It would have been obvious to one of ordinary skill to have modified the composition of the bristles of Michaels as such since one of ordinary skill would be well aware of any thermoplastic elastomer materials (which is the main concern of Michaels) and that the selection of the any one of them amounts to an obvious choice of Mechanical design depending on the desired properties thereof. Also, pad (8) of Michaels reads on the recited "spacer" of claim 40.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Spisich whose telephone number is (571) 272-1278. The examiner can normally be reached on M-Th (6-3:30), Alternate Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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